

ABSTRACT OF THE DISCLOSURE

A system for managing the control of a bi-directional data bus between a master unit and a slave unit. The master couples to the slave through a request opcode bus, a
5 reply opcode bus and the data bus. If the master is in a bus driving state (with respect to the data bus) and receives a read request, the master relinquishes bus control and sends a read request through the request opcode bus. The slave unit assumes bus control and sends the requested data through the data bus. If the master is in a bus sensing state and receives a write request, the master sends a last read opcode to the slave via the request
10 opcode bus, and waits for the slave to return a special token through the reply opcode bus. Upon receiving the special token the master unit assumes bus control and performs the write transaction.